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Syntex- Verona
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6.4
Implementation
RD2 10-4-88

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OCT 04 1988

Mr. Robert L. Williams
Administrator, Environmental Projects
Post Office Box 1246
Springfield, Missouri 65801

Dear Mr. Williams:

This letter is being written in regard to the "Implementation Plan" (IP) for the Syntex Agribusiness, Inc., Verona plant site. In general, the Environmental Protection Agency (EPA) approves the actions detailed in the subject plan. This approval is provided to allow Syntex time to proceed with planning and scheduling activities necessary prior to the actual remedial action. This approval, however, is contingent on Syntex providing additional information in response to the enclosed list of comments. The Syntex response can be provided as a revised version of the IP report and affected appendices or as an addendum to the subject plan.

The proposed remedial alternatives for the Syntex equipment with 2, 3, 7, 8-tetrachlorodibenzo-p-dioxin residuals of 40 ng/m^2 are acceptable. Equipment containing residues above this action level should either be recleaned or properly stored until an appropriate disposal technology is developed, that reduces residual concentrations to an acceptable level.

Should you have any question regarding this letter, feel free to contact Glenn Curtis, Remedial Project Manager, or me.

Sincerely yours,

David A. Wagoner
Director, Waste Management Division

Enclosure

cc: John Young, MDNR
Jim Williams, MDNR
bcc: Sara Sullivan
Russ Krohn, Tetra Tech

WSTM:SPFD:REMD:Curtis:du Curtis Disk 2-IPPLAN 9/21/88

REMD	REMD	SPFD	WSTM
Curtis	Wright	Morby	Wagoner
Curtis 9-30-88		WRIGHT 9/30/88	

Comments to the Syntex, Verona,
Implementation Plan (IP)

1. The Implementation Plan (IP) must state that a five-year review as described in the ROD and required by the SARA, will be conducted in the Trench Area.

2. The IP must recognize that the issue of remediating local ground water will be addressed in a second operable unit. Ground water investigations have detected compounds at levels of concern. These concerns have prompted the need for additional monitoring and evaluation of possible ground water remedial measures. The IP should state that additional ground water monitoring will be conducted in an effort to determine what, if any, actions are necessary to protect human health and the environment; and that these actions, including the no-action alternative, will be addressed under a second operable unit remedial investigation/feasibility study report and decision document.

3. An adequate characterization of the sodium sulfide salt residues, described in Section V.C. 1d, has not been provided. These residues should be analyzed for hazardous constitutes or handled as a hazardous substance. Ultimate disposal alternatives for these materials before or after treatment must be based on information gained following a thorough analysis.

4. References to dioxin surface soil sampling techniques should distinguish between simple averaging and sampling efforts designed using the 95 percent upper confidence level.

5. The IP should clearly describe the process of equipment decontamination during the excavation effort. What was the final disposition of the decon water used to spray off the equipment? Were the staging area(s)/brush down area(s) analyzed for dioxin subsequent to use?

6. Were the soils, used as backfill in the lagoon and burn areas, sampled prior to use?

7. All solvents generated during equipment decontamination and maintained onsite must be stored in compliance with the applicable RCRA requirements. Details on how Syntex plans to store these solvents and comply with the RCRA requirements should be provided.

8. The IP must state which ground water monitoring wells will be monitored, the frequency of sampling and the parameters to be analyzed. At minimum, restatement of the pertinent information provided in Sections III C.5 and 10 of the Remedial Alternatives Report dated March 3, 1988, should be made.

9. A map of the proposed locations of the additional wells located in the floodplain, at the plant site, should be provided.

10. Well development procedures should clearly state what efforts will be conducted to evaluate the Syntex plant's potable water and the proposed final disposition of water generated during well development.

11. Copies of the documents generated during well design and construction should be submitted to EPA and MDNR.

12. The selected remedial action for the resulting equipment/scrap metal containing residual concentrations of dioxin above 10 ng/m^2 must receive approval by the MDNR prior to implementation.

13. In Appendix 11, drawings for the tank numbers and connecting arrows should be provided.

14. The method specified in Appendix 12 is outdated. The more current method is entitled, "Statement of Work for Rapid Turn-Around of Dioxin Analysis." Revised 11-86, 6-87, 8-88, available through: CLP Sample Management Office, Post Office Box 818, Alexandria, Virginia 22313, phone (703) 557-2490.

15. A revised timetable for implementing the proposed remedial action should be submitted. The EPA and MDNR potentially will oversee portions of the stated remedial actions. If possible, two weeks notice should be provided prior to installation of the proposed monitoring wells.

16. Subsequent to the remedial action addressing equipment decontamination, a written report should be submitted that describes the final disposition of all treated equipment. The method by which equipment, containing dioxin residuals greater 40 ng/m^2, is stored for future treatment should be povided in this report.

The following are provided as comments to specific health and safety issues discussed in the IP and the Health and Safety Plan provided in Appendix 4. These comments are provided for your information.

1. Page 46, Section V.D.1.f: What is the basis for using the STEL for toluene as an action limit? If the only contaminant expected to be present is toluene, then the 150 ppm is judged to be acceptable as a STEL; otherwise, a conservative action level which provides protection against a wide range of contaminants should be adopted. Generally, at total organic vapor concentrations (unknown contaminants) of 1 ppm above background, personnel should upgrade to an EPA Level C of personal protective clothing and equipment, and at concentrations in excess of 50 ppm, Level B personal protective clothing and equipment should be worn in the work area.

2. Page 49, Section VI.A., paragraph 1: A description of the level of personal protective clothing and equipment should be given, or a specific reference to the Health and Safety Plan's categories (eg., 1, 2 or 3) should be made. The reference as given in the document would be clearer if made directly to Appendix 4 instead of the general sampling and excavation plan.

3. Page 51, Section VII, general: At some point, whether in this section or in Appendix 4, criteria affecting health and safety decisions should be specified. What constitutes "moderate to high" levels of TCDD which affect the categories of personal protective equipment? Since 8.8 mg/m^3 TCDD is apparently the exposure limit Syntex has chosen, then the protection factor limits for the half-face respirators should be specified. Real-time air monitoring procedures required by 29 CFR 1910.120 should be specified. Specific garment material should be specified, based on permeation and degradation tables.

4. Appendix 4, page 12, Section C.4: A full-face respirator and SARANEX coveralls for splash protection should be used at a minimum for work involving a potential for solvent and acid exposure. A full-face respirator provides better splash protection for the face and reduces the chance of upgrading due to exceeding the protection factor of the respirator. The work area should be closely monitored for organic vapor concentrations to determine if an upgrade in respiratory protection (to an SCBA) is warranted. Action levels for upgrades in levels of protection need to be established (the TWA for hexane is 50 ppm). Specific materials (gloves, boots and protective clothing) that are suitable for the chemicals used should be identified.

5. Appendix 4, page 21, Section F.2: How does Syntex intend to monitor toxicity? This section should be expanded to include the use of a PID to detect total organic vapors, as an alternative to "toxicity."

6. Appendix 4, page 23, Section G: The phone numbers for the emergency assistance agencies and a location map for the hospital should be included with this report.

7. Appendix 4, Table 1: This table is very difficult to read and should be clarified.

8. Appendix 11, Section VI, paragraph 1: Category 1 personal protective equipment is not sufficiently described and appears less than optimum.